

# **ABSTRACT**

A method of manufacturing a semiconductor device capable of reducing the manufacturing cost and preventing the yield-down caused by etching process comprises the steps of forming a separation layer 120 and an epitaxial film 130 carrying LEDs 130c on a substrate 110, forming a protection layer 150 on the epitaxial film, forming etching grooves by etching a region of the epitaxial film, which is not covered by the protection layer, etching the separation layer to make discrete epitaxial films 130a, and adhering the discrete epitaxial films 130a onto the surface of a silicon substrate 170.